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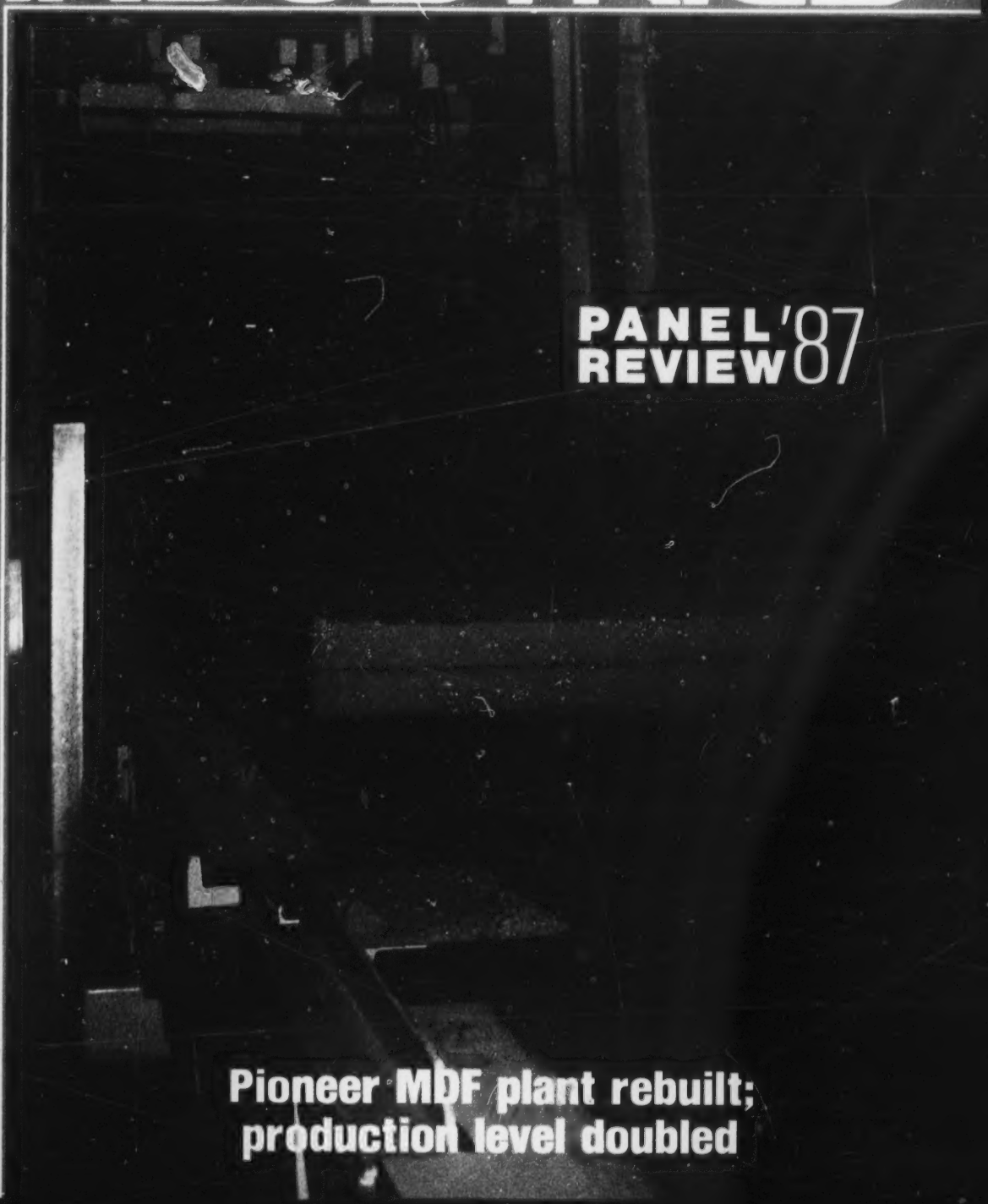

PANEL REVIEW '87

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Pioneer MDF plant rebuilt; production level doubled

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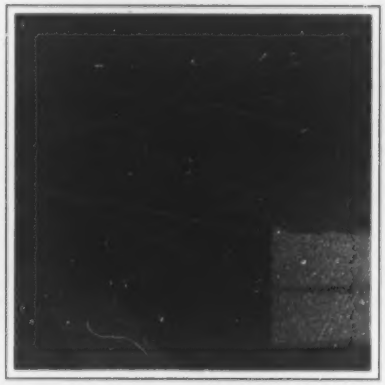

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Structural panel output pushed over the top in fourth consecutive year, thanks to strength in both plywood and non-veneer markets. MDF reaches new high; industrial board paces particleboard gains

Records fall within U.S. panel industry

San Francisco, California

Strong demand pulled output of structural panels and medium-density fiberboard in the United States to record levels in 1986, and raised particleboard production as well. In the panel industry, only hardboard continued a declining trend.

Structural panels consist of softwood plywood, oriented strand board and waferboard. American Plywood Assn. estimates place 1986 production at 25.4 billion ft^2 (⅜-in. basis), an 11.2% jump from the 1985 record of 22.8 billion ft^2.

National Particleboard Assn. has estimated 1986 MDF production at 755 million ft^2 (¾-in. basis). This is a 10.3% gain over the 1985 production level of 684.6 million ft^2; another record.

Last year's particleboard production increased to an estimated 3.5 billion ft^2 (¾-in. basis), gaining 5.1% on 1985 output of 3.3 billion ft^2, according to the NPA. The record year for particleboard was 1978, when production reached 3.7 billion ft^2.

Hardboard output has slipped yearly since 1983, when production of 7.3 billion ft^2 (⅛-in. basis) was recorded. The 1986 level was reported at 5.8 billion ft^2 by the American Hardboard Assn., a drop of 7.6% from the previous year's figure of 6.3 billion ft^2. The record year for hardboard was also 1978, when production reached 7.8 billion ft^2.

Canadian panel production volumes last year did not stray far from the previous year's levels. Softwood plywood was depressed by a lengthy strike in British Columbia; waferboard and particleboard were up a fraction; and hardboard was off. Details are contained in the sidebar on the opposite page.

Structural panels

Of the 25.4 billion ft^2 (⅜-in. basis) structural panel production total last year, softwood plywood accounted for 22.1 billion ft^2 and non-veneer panels for 3.3 billion ft^2, the American Plywood Assn. estimated. This represents a 10% gain for plywood and a 24% increase for OSB and waferboard, measured against record 1985 levels. APA expects final numbers late in April.

Structural panel production is expected to grow to 26.4 billion ft^2 by 1991, according to APA's Marketing Group, following a dip in the late 1980s. This will represent 84.6% of the industry's capacity. Production will remain centered in the South (46.4%), although gains will be recorded in all regions.

By 1991, 32 waferboard and OSB plants should be on line in the United States, registering capacity of 5.3 billion ft^2 and production of 4.6 billion ft^2. Production will represent 15% of the total structural panel capacity.

U.S. structural panel producers have aggressively pursued market diversification to minimize dependence on the cyclical home building industry. Only 9.4 billion ft^2, or 38%, of production went into home building last year, despite home building strength indicated by 1.8 million housing starts, APA president William T. Robison noted.

By contrast, 1978 saw 47% of structural panel output move into the housing market. Total production was 19.9 billion ft^2.

APA is forecasting 1.7 million housing starts this year and has expressed confidence that further gains in non-housing markets will keep production at the 25 billion ft^2 level.

International markets represent an extremely bright spot on APA's marketing horizon. Offshore shipments in 1986

U.S. Panel Production, 1976-1986

(thousand ft^2)

Year	Structural panels (⅜-in. basis)	Particleboard (¾-in. basis)	Hardboard (⅛-in. basis)	MDF (¾-in. basis)
1976	18,440,000	3,202,225	7,066,022	280,036
1977	19,376,000	3,592,910	7,200,000	441,354
1978	19,964,000	3,720,369	7,800,000	508,416
1979	19,653,000	3,376,488	7,687,798	506,728
1980	16,468,000	2,949,897	6,140,000	493,140
1981	17,023,000	2,869,352	6,104,000	516,102
1982	16,402,554	2,393,066	5,586,918	446,157
1983	20,821,342	2,919,544	7,302,702	605,098
1984	21,967,917	3,195,586	6,837,118	634,974
1985	22,838,170	3,330,517	6,300,146	684,593
1986	25,400,000*	3,500,000*	5,822,328	755,000*

** Estimated.*

totaled 595.6 million ft², or 526,000 m³, a leap of 85.8% above the 1985 volume, and the association has identified the international sector as the market area capable of the most dramatic expansion over the next 25 years. Shipments exceeding 4 million ft² are achievable by 2010, Robison said.

Particleboard and MDF

Combined particleboard and MDF production in 1986 totaled over 4.2 billion ft² (¾-in. basis), equaling the previous record set in 1978, observed Rich Margosian, general manager of the National Particleboard Assn.

Last year also saw positive progress in resolving the issue of formaldehyde emissions from particleboard and MDF, Margosian noted.

Nearly all the 5.1% production gain in particleboard last year was represented by industrial panels, while mobile home decking and underlayment shipments were virtually the same as in 1985. Last year was the fourth consecutive annual period of MDF growth since the industry began recovering from the 1982 slump, when shipments totaled 2.8 billion ft².

Particleboard shipments in 1986 represented nearly 90% of industry capacity, Margosian reported, while MDF production represented 77% of U.S. capacity at the end of the year.

Particleboard capacity was reduced by 102 million ft² in 1986 due to closure of the Kirby Forest Industries plant in Silsbee, Texas. Capacity will increase in 1987 with new lines at Weyerhaeuser Co., Moncure, N.C., 90 million ft²; Louisiana-Pacific Corp., Missoula, Mont., 50 million ft²; and Masonite Corp., Stuart, Va., 45 million ft².

NPA estimated particleboard capacity as of Jan. 1, 1987 at 3.9 billion ft² and projects the level to increase almost 5% to 4.1 billion ft² by Dec. 31, 1987.

The MDF industry added to annual production capacity during 1986 and will do so again in 1987, Margosian noted. Last year saw production come on line at Louisiana-Pacific Corp., Newberry, Mich., 50 million ft², and MDF Technology Inc., Deposit, N.Y., 55 million ft² (see story, p. 13).

In 1987, new production is scheduled for Louisiana-Pacific Corp. at Eufaula, Ala., and Urania, La., each 50 million ft², and Willamette Industries, Malvern, Ark., 58 million ft². These additions will push U.S. MDF capacity above 1.1 billion ft² by the end of 1987, according to NPA projections.

Some important milestones were reached in 1986 concerning the formaldehyde issue, Margosian pointed out:

- Two Voluntary Industry Standards covering formaldehyde emissions were approved by industry. NPA 8-86, approved in January by companies representing over 90% of the industry, defines maximum emission levels for particleboard, following the 1985 HUD rule emission levels of 0.3 ppm at a loading ratio of 0.13 ft²/ft³ and 0.5 air changes per hour. October brought industry approval of a Voluntary Formaldehyde Emission Standard for MDF which limits emissions to 0.3 ppm at a loading ratio of 0.08 ft²/ft³. This ratio represents about twice the maximum amount of MDF which would be used in a home.
- In October, the Consumer Product Safety Commission denied a Consumer Federation of America petition requesting development of stringent mandatory formaldehyde regulations. CPSC cited industry efforts to reduce emissions and pointed to studies indicating use of the new low-emission products should keep indoor ambient levels below 0.1 ppm.

Factbook available in August

While gathering data for this year's panel review, FOREST INDUSTRIES editors conducted a mill-by-mill survey of North American panel plants. Updated production and/or capacity figures were collected from several hundred mills.

These statistics will be included in the *1987-88 North American Factbook*, an all-new reference due off press in August. The Factbook will include a wide range of information about lumber and panel producers in the U.S. and Canada, including current production figures, capital spending data, and listings of where products are sold.

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Strike depressed 1986 Canadian plywood output

VANCOUVER, B.C.—In terms of growth, 1986 was not a banner year for the wood-based panel industries in Canada. Softwood plywood production in British Columbia declined 4%, due largely to the lengthy strike which shut down several major mills. In softwood plywood, as goes B.C., so goes Canada.

Waferboard and particleboard registered production gains, and hardboard slipped against 1985 levels. Statistics Canada reported the following 1986 figures (1985 production in parentheses):

- Softwood plywood shipments were 1,887,557 m³; production was 1,876,896 m³ (1,957,887 m³); production was down 4.1%.
- Waferboard/OSB shipments were 1,355,587 m³; production 1,347,638 m³ (1,336,566 m³); production up 0.8%.
- Particleboard shipments 1,115,095 m³; production 1,139,253 m³ (1,047,500 m³); production up 8.8%.
- Hardboard shipments 135,650 m³; production confidential (155,929 m³).

The Council of Forest Industries of British Columbia calculated 1986 B.C. softwood plywood production at 1.733 billion ft² (⅜-in. basis), versus 1.855 billion ft² in 1985.

Coastal mills bore the brunt of the strike-related production cut with a 14% drop in Douglas fir production. Canadian Softwood Plywood (CSP) production was up 3%, reflecting the increased capacity of mills in the Interior.

A new plywood mill at Fort Nelson came on stream in 1986 and capacity increases in other plants through modernization expanded the B.C. industry by 150 million ft², according to COFI.

The domestic market for softwood plywood was buoyant during 1986 with the strong housing demand helping to maintain higher price levels. But this produced a negative effect on export shipments, particularly sanded grades.

Art Kempthorne, COFI's plywood sector manager, estimated that 1987 production will run 5% to 10% higher than in 1986. He also expects export volumes will be restored to a point close to 1985 levels now that the effects of the lengthy strike are dissipated.

"There are definite signs of recovery in the United Kingdom timber frame housing market," he said. "This should assist in the recovery of our exports to that country. We have finally made a long-awaited breakthrough in the Italian concrete form market and Italy was our third largest export market in 1986. Japan is continuing to show a steady demand for export packaging and China presents a major opportunity."

In the area of reconstituted panels, Canada expanded its MDF capacity in 1986 by 50 million ft²/yr (¾-in. basis) with completion of the Blue Ridge Lumber Co. mill in Whitecourt, Alta., the National Particleboard Assn. indicated. Panfibre in Mont Laurier, Que., will add another 61 million ft² when it begins production late this year. ■